WHAT IS CLAIMED IS:

1. A distributed simulation system comprising:

5   a first node configured to simulate a first portion of a system under test using a first simulation mechanism; and

a second node configured to simulate a second portion of the system under test using a second simulation mechanism different from the first simulation
10   mechanism;

wherein the first node and the second node are configured to communicate during a simulation using a predefined grammar.

15   2. The distributed simulation system as recited in claim 1 wherein the first simulation mechanism includes a first simulator and a first model of the first portion, and wherein the second simulation mechanism includes one or more programs which, when executed, model the second portion.

20   3. The distributed simulation system as recited in claim 2 wherein the first model is a register-transfer level model of the first portion.

4. The distributed simulation system as recited in claim 2 wherein the first model is a behavioral level model of the first portion.

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5. The distributed simulation system as recited in claim 2 wherein the first model is a hardware verification language model of the first portion.

6. The distributed simulation system as recited in claim 2 wherein the first model is a

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Superlog model of the first portion.

7. The distributed simulation system as recited in claim 2 wherein the one or more programs are coded in a programming language and compiled for execution.

8. The distributed simulation system as recited in claim 7 wherein the programming language is C.

9. The distributed simulation system as recited in claim 7 wherein the programming language is C++.

10. The distributed simulation system as recited in claim 7 wherein the programming language is Java.

11. The distributed simulation system as recited in claim 1 wherein the first simulation mechanism includes a hardware implementation of the first portion and code for interfacing to the hardware.

12. The distributed simulation system as recited in claim 11 wherein the second simulation mechanism includes one or more programs which, when executed, model the second portion.

13. The distributed simulation system as recited in claim 11 wherein the second simulation mechanism includes a simulator and a model of the second portion.

14. The distributed simulation system as recited in claim 1 wherein the first simulation mechanism includes an emulator configured to emulate the first portion.

15. A carrier medium carrying a first one or more programs included in a first simulation

mechanism for simulating a first portion of a system under test in a first node of a distributed simulation system and a second one or more programs included in a second simulation mechanism for simulating a second portion of the system under test in a second node of a distributed simulation system, the second simulation mechanism

5   differing from the first simulation mechanism, wherein the first node and the second node communicate during a simulation using a predefined grammar.

16. The carrier medium as recited in claim 15 wherein the first one or more programs includes a first simulator, and wherein the first simulation mechanism further includes a

10   first model of the first portion, and wherein the second one or more programs, when executed, model the second portion.

17. The carrier medium as recited in claim 16 wherein the first model is a register-transfer level model of the first portion.

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18. The carrier medium as recited in claim 16 wherein the first model is a behavioral level model of the first portion.

19. The carrier medium as recited in claim 16 wherein the first model is a hardware

20   verification language model of the first portion.

20. The carrier medium as recited in claim 16 wherein the first model is a Superlog model of the first portion.

25   21. The carrier medium as recited in claim 16 wherein the second one or more programs are coded in a programming language and compiled for execution.

22. The carrier medium as recited in claim 21 wherein the programming language is C.

23. The carrier medium as recited in claim 21 wherein the programming language is C++.

24. The carrier medium as recited in claim 21 wherein the programming language is
5   Java.

25. The carrier medium as recited in claim 15 wherein the first simulation mechanism includes a hardware implementation of the first portion, and wherein the first one or more programs include code for interfacing to the hardware.
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26. The carrier medium as recited in claim 15 wherein the first simulation mechanism includes an emulator configured to emulate the first portion.

27. An apparatus comprising:
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    a first means for simulating a first portion of a system under test using a first
        simulation mechanism;

    a second means for simulating a second portion of the system under test using a
20   second simulation mechanism different from the first simulation
        mechanism; and

    means for communicating between the first means and the second means during a
        simulation using a predefined grammar.
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28. The apparatus as recited in claim 27 wherein the first simulation mechanism includes a first simulator and a first model of the first portion, and wherein the second simulation mechanism includes one or more programs which, when executed, model the second portion.

29. The apparatus as recited in claim 27 wherein the first simulation mechanism includes a hardware implementation of the first portion and code for interfacing to the hardware.

30. The apparatus as recited in claim 27 wherein the first simulation mechanism includes an emulator configured to emulate the first portion.

31. A method comprising:

      simulating a first portion of a system under test in a first node of a distributed simulation system, the simulating using a first simulation mechanism;

      simulating a second portion of a system under test in a second node of the distributed simulation system, the simulating using a second simulation mechanism different from the first simulation mechanism; and

      communicating between the first node and the second node during a simulation using a predefined grammar.

32. The method as recited in claim 31 wherein the first simulation mechanism includes a first simulator and a first model of the first portion, and wherein the second simulation mechanism includes one or more programs which, when executed, model the second portion.

33. The method as recited in claim 31 wherein the first simulation mechanism includes a hardware implementation of the first portion and code for interfacing to the hardware.

34. The method as recited in claim 31 wherein the first simulation mechanism includes an emulator configured to emulate the first portion.